Claims:

1. A cylindrical separator for cylindrical cells, comprising a cylindrical body constituted by a layered structure of a plurality of turns of a first sheet material wound around a mandrel, and a bottom part closing a first end of said cylindrical body and being formed of an extended portion of said body past said first end by guided wet forming when said cylindrical body being rotated while being on said mandrel, and said bottom part being pressed and heat fused.

2. The cylindrical separator as claimed in claim 1, wherein the first sheet material is a nonwoven, paper-like material.

3. The cylindrical separator as claimed in claim 1, wherein said cylindrical body being made from a plurality of sheets placed onto one another and wound together.

4. The cylindrical separator as claimed in claim 3, wherein said sheets comprise at least one layer of semi permeable membrane, such as a cellophane layer or grafted micro-porous polyolefin.

5. The cylindrical separator as claimed in claim 1, wherein said turns being not affixed to each other and said cylindrical body being encircled from outside by a cylindrical supporting member, said member being constituted during said winding and forming step by a winding nest and during and after placement into a cell by the cylindrical inner wall of the cell.

6. The cylindrical separator as claimed in claim 1, comprising a thermoplastic sealant arranged at the outer central zone of said bottom part.

7. A method for making the cylindrical separator as claimed in claim 1 comprising the steps of:

- providing a sheet separator material of predetermined length and width, wherein the length defining the number of turns and the width being at least as long as the

length of the cylindrical portion of the separator plus an extended portion being at least the half diameter of the separator;

- winding said sheet material around a mandrel by rotating said mandrel in a first direction, wherein said mandrel extends till said extended portion of the separator;
- supporting the outside of the winding by means of a winding nest;
- applying a predetermined amount of water to said extended portion during any of the foregoing steps to soften said sheet material at the extended portion,
- gradually folding said wetted extended portion when said separator and said mandrel being rotated to provide a closed end portion for the separator;
- causing said mandrel and said separator to stop rotation;
- heat fusing said wet portion; and
- introducing said separator into the cylindrical cavity of a semi-finished cell by pushing said closed bottom portion by means of a pin forming part of said mandrel, wherein during said introduction step said outside support of the separator is gradually provided by the interior of said cell after the separator leaves said winding nest; and
- withdrawing said mandrel from the interior of said separator.

8. The method as claimed in claim 7, wherein the cut length of the sheet material can be adjusted on-line.

9. The method as claimed in claim 7, wherein at least two sheet materials placed on one another being wound during said winding step.

10. The method as claimed in claim 7, wherein at least one sheet being a layer of a semi permeable membrane, such as a cellophane layer or grafted micro-porous polyolefin.

11. The method as claimed in claim 7, further comprising the step of slightly pressing said rotating separator on said mandrel from the outside by a belt moved with the required peripheral speed of the rotating separator through the whole period of rotation.

12. The method as claimed in claim 7, wherein during said folding step providing a support surface by using a head portion of said mandrel shaped to the required profile of said bottom portion of the separator.

13. The method as claimed in claim 7, wherein during said folding step moving the separator with the mandrel and with the winding nest along a path of a folding rail provided with a groove having a varying profile to force forming of said extended portion.

14. The method as claimed in claim 11, wherein said heat fusing step being carried out by a heated die shaped to the required profile of said separator bottom portion and being pressed against said head portion of said mandrel.

15. The method as claimed in claim 7, wherein said mandrel consisting of an outer sleeve and a pin arranged co-axially therein and during said introducing step said pushing being provided by said pin, and during said withdrawal step first said sleeve being withdrawn followed by the withdrawal of said pin.

16. The method as claimed in claim 7, further comprising the step of applying a thermoplastic sealant of predetermined volume on the central zone of said bottom portion following said heat fusing step.

17. The method as claimed in claim 7, wherein all of said steps being synchronized with elementary movements of a cell manufacturing line.